

**To:** Copeland, Michael[Copeland.Michael@epa.gov]  
**From:** Bahrman, Sarah  
**Sent:** Fri 8/7/2015 7:56:47 PM  
**Subject:** FW: Update from Denver ATSDR RE: Mine water pulse  
[tfactsaluminum.pdf](#)  
[tfactszinc.pdf](#)

Sarah E. Bahrman | Acting Director, Water Program | U.S. Environmental Protection Agency - Region 8

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**From:** Ken Bousfield [mailto:kbousfield@utah.gov]  
**Sent:** Friday, August 07, 2015 1:32 PM  
**To:** Bahrman, Sarah  
**Subject:** Fwd: Update from Denver ATSDR RE: Mine water pulse

Another up date.

Ken B

----- Forwarded message -----

**From:** Erica Gaddis <egaddis@utah.gov>  
**Date:** Fri, Aug 7, 2015 at 12:59 PM  
**Subject:** Fwd: Update from Denver ATSDR RE: Mine water pulse  
**To:** Ken Bousfield <kbousfield@utah.gov>, Ying-Ying Macauley <ymacauley@utah.gov>

FYI from DOH toxicologist.

Erica

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From: **Craig Dietrich** <[dietrich@utah.gov](mailto:dietrich@utah.gov)>

Date: Fri, Aug 7, 2015 at 12:13 PM

Subject: Update from Denver ATSDR RE: Mine water pulse

To: Erica Gaddis <[egaddis@utah.gov](mailto:egaddis@utah.gov)>

Cc: Sam LeFevre <[slefevre@utah.gov](mailto:slefevre@utah.gov)>

Hi Erica,

I just got off the phone with our Regional folks in Denver, so far the main human health talking points are:

- The only water testing data available find that the water pH fluctuated between 7 and 5.5. 5.5 is roughly the acidity of black coffee. As far as recreational contact, this may result in eye irritation.
- The primary metals thought to be present are aluminum, iron and zinc (I've attached toxfaqs for Zn and Al, Fe is hard on fish gills but not a big exposure issue for humans)

As far as transport, initial estimate is that the pulse will reach Farmington, NM this evening. At Farmington, it will mix with the San Juan R. and have to travel another 50-60 miles to Utah.

Low pH will keep metals in solution, however, as pH stabilizes the metals will precipitate out to the sediment.

ATSDR will keep me updated. It appears from the available info that human health impact from recreational usage will be low. If rafters are filtering and purifying river water for consumption, that should be protective (especially if they are allowing turbid waters to settle before filtration/purification as is standard practice).

Its harder to make a good call on livestock watering until EPA produces some more water data, but based upon the limited info available, that risk also appears to be low.

Feel free to relay this info to the DE in San Juan County. Since you are their point of contact, I am not planning to contact San Juan County Health District Engineers or Health Department unless you request me to do so.

I'll keep you updated,

Craig

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Craig J. Dietrich, Ph.D., DABT  
Toxicologist

Health Program Manager II

Environmental Epidemiology Program

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Phone: 801-538-6832  
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